Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	
Advanced Telecommunications Capability	)	GN Docket No. 04-54
to All Americans in a Reasonable and	)	
Timely Fashion, and Possible Steps to	)	
Accelerate Such Deployment Pursuant to	)	
Section 706 of the Telecommunications	)	
Act of 1996		

COMMENTS OF THE UNITED POWER LINE COUNCIL

Pursuant to Section 1.415 of the Federal Communications Commission ("FCC") Rules, the United Power Line Council ("UPLC") hereby submits its comments in response to the Notice of Inquiry in the above referenced proceeding.[1] The UPLC responds to the FCC's request for information on the deployment of broadband over power lines, which is a new technology that promises to promote universal affordable broadband access for all Americans. The UPLC is pleased to report that commercial deployment of BPL systems has begun and that various technical and market trials of BPL have been launched or expanded this year. However, the industry is still nascent and the rules for its deployment are in development. The UPLC is optimistic about the prospects for BPL, but future growth will substantially depend on the adoption of technical rules and policies that encourage the deployment of BPL systems.

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[1] *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Notice of Inquiry, GN Docket No. 04-54, 2004 WL 527086 *("706 NOI*").

I. Introduction

The UPLC is an alliance of utilities and their technology partners that are developing BPL in America. Its mission is to drive the development of business, technical and regulatory solutions for BPL in a manner that enables all its members to succeed. The UPLC was created in recognition that significant trials are underway in various parts of North and South America. It was formed by the United Telecom Council (UTC) as a separate organization to carry on and expand on the efforts of the UTC's Power Line Telecommunications Forum (UTC PLTF) that has been the primary resource for advocacy and information on BPL in North America since 1998. Virtually every utility and technology company that is either interested in or actively deploying BPL in the U.S. is a member of the UPLC.[2]

II. Utilities and technology providers have deployed BPL in numerous trials in various parts of the country.

The FCC inquires about new technologies such as BPL that are now being used to provide high-speed or advanced services, or likely to be used in the near future.[3] It also inquires about how widely these new technologies have been deployed and what percentage of customers utilize such services.[4] Finally, it inquires to what extent some of these developments may improve the speed and range of services offered to consumers, and whether these technological

[2] The members of the UPLC are listed on the UPLC website at www.uplc.org.

[3] *706 NOI* at ¶25.

[4] *Id.*

developments are likely to be particularly beneficial to specific groups of customers, such as rural customers or customers with disabilities.

Utilities and technology companies have been engaged in trials of BPL systems for several years.[5] The results of these trials have been encouraging, and several trials have been expanded.[6] Some are beginning to offer commercial service.[7] Some of these trials already pass thousands of homes and many of these commercial deployments will pass thousands more. As such, BPL is emerging as both a technically and economically viable platform that can make efficient use of the nation's ubiquitous electrical distribution network to provide affordable universal broadband services for all Americans.

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[5] *See generally* Applications for Experimental Radio Station Construction Permit and License by Progress Energy; Current Technologies, LLC; Ambient Corporation; Ameren Energy Communications, Inc.; City of Manassas; Hawaiian Electric Company, Inc.; PPL Electric Utilities DBA PPL Utilities; and Southern Telecom, Inc.

[6] *See* Comments of Southern LINC et al. in ET Docket No. 04-37 at 7 (filed May 3, 2004)("based on its testing so far, Access BPL is meeting Southern's expectations"); Comments of Hawaiian Electric Co., Inc. in ET Docket No. 04-37 at 2 (filed May 3, 2004) (HECO has been testing various forms of BPL technology since 2002 and strongly supports the FCC's contention that BPL is a nascent and extremely promising technology); Comments of PPL Telcom, LLC in ET Docket No. 04-37 at 2-3 (filed May 3, 2004) (PPL Telcom expanded its technical trials and the results of those trials indicated that BPL was viable for both access and in-home high-speed data communications); Comments of Duke Energy Corporation in ET Docket No. 04-37 at 2 (filed May 3, 2004) (Duke believes that Access BPL has the potential to provide a viable alternative to existing broadband pipelines and to extend broadband to unserved and underserved areas.) *See also* "News Release: Progress Energy and EarthLink testing broadband over power lines with area customers" at http://www.amperion.com/uploadedfiles/Progress_Earthlink_2_18_04.pdf (announcing that BPL service offered to 500 homes).

[7] *See News Release: Cinergy and Current Communications to Offer Broadband Services over Power Lines* at http://www.cinergy.com/News/default_corporate_news.asp?news_id=420 (announcing commercial deployment in Cincinnati, Ohio and a subsequent expansion planned for Northern Kentucky and Indiana); *City of Manassas is First in Nation to Offer Broadband Internet over Power Lines,* Utility Connection, Nov. 2003, at http://www.powerline-plc.com/newsreleases/City_Of_Manassas_Utility_Connection_11_03.pdf (announcing City Council approval to provide commercial service to all residents and businesses in Manassas). *See also Virginia Power Coop Lights up Broadband at http://www.fcw.com/geb/articles/2004/0329/web-power-04-01-04.asp. And see* BPL.Coop at http://www.forcvec.com/bplcoop/.

III. BPL promotes broadband access and competition and improves the efficiency and reliability of utility operations.

The success of BPL has been driven by a number of factors, not the least of which is that it can improve the quality and efficiency of electrical service while it enables various commercial applications, such as voice, video and high-speed Internet access.[8] "Access BPL systems provide a potential mechanism for electric utilities to apply PLC monitoring systems to every aspect of their electric delivery service and not only to large installations and transmission facilities. . . The value of this type of reliability to individual customers is immeasurable."[9]

In addition, Access BPL systems can provide broadband service where DSL and cable do not reach; and in areas already served by DSL and cable, Access BPL will increase competition, which will help to force down prices, improve service, and increase levels of service.[10] Already BPL is capable of providing symmetrical speeds in excess of 3 Mbps, and "next generation" chipsets enabling up to 100 Mbps net user throughputs are currently being developed to enable BPL to offer real-time digital video and other high bandwidth

[8] *See* Comments of Consolidated Edison Company of New York, Inc. in ET Docket No. 04-37 at 3 (filed May 3, 2004)("Comments of Con Edison)(stating that Con Edison is actively evaluating BPL technology for the purpose of its power line carrier ("PLC") systems, energy management, power outage notification, automated meter reading and other utility applications); *and* Comments of Hawaiian Electric Co., Inc. in ET Docket No. 04-37 at 2 (filed May 3, 2004)(stating that BPL is the only infrastructure that can truly give the utility cost-effective ubiquitous "customer connectivity" to its entire service territory). *And see* Comments of Southern LINC et al. in ET Docket No. 04-37 at 3-6 (reporting that Access BPL supports internal utility applications such as reclosure operations, power quality monitoring, automated meter reading, automatic connect and disconnect, system security and voice over IP.)

[9] *See* Comments of Con Edison in ET Docket No. 04-37 at 5.

[10] *See* Comments of Current Technologies, LLC in ET Docket No. 04-37 at 7 (filed May 3, 2004).

applications by late 2005 or early 2006.[11] Moreover, BPL is "plug and play", and enables home networking for consumers.[12] As such, BPL is a nascent technology that holds great promise for both commercial and utility applications that will benefit consumers in areas that are underserved and unserved by other broadband access technologies.[13]

IV. Conclusion

The advent of commercial BPL services this year promises to help fulfill President Bush's goal of affordable universal broadband access by 2007.[14] The UPLC appreciates the support of the FCC in developing rules that will promote the deployment of BPL while protecting radio operations from harmful interference. Given the nascent state of this new technology and the enormous

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[11] *Id.* at 8. *See also* Comments of Main.net Communications Ltd. in ET Docket No. 04-37 at 4 (filed May 3, 2004)(reporting that Main.net's technology, G2, provides users with an effective maximum bandwidth of 10 Mbps, with sustainable service level of 1.5-10 Mbps); Comments of Amperion in ET Docket No. 03-104 (filed July 7, 2003)(reporting data transmission speeds of 18 Mbps on medium voltage power lines and 4-5 Mbps to customers using Wi-Fi);*and* Comments of Ambient Corp. in ET Docket No 03-104 (filed July 7, 2003)(reporting data rates to homes of 3-4 Mbps). *And see* Comments of Hawaiian Electric Co., Inc. in ET Docket No. 04-37 at 2 (filed May 3, 2004)(reporting symmetrical speeds of 3 Mbps).

[12] *See 706 NOI* at ¶ 25 (inquiring about new technologies within the consumer's premises, to lower the cost or difficulty of installing or using advanced services). *See also* Comments of the HomePlug Power Line Alliance in ET Docket No. 03-104 (filed July 7, 2003). *And see* Comments of the HomePlug Power Line Alliance in ET Docket No. 04-37 (filed May 3, 2004).

[13] ISPs and carriers are also interested in BPL as an alternative access platform to promote broadband and local service competition. *See e.g.* Comments of AT&T in ET Docket No. 04-37 (filed May 3, 2004). *See also* Jim Wagner, *Earthlink Invests in Powerline Broadband* at http://www.internetnews.com/xSP/print.php/3315881

[14] *See* "Bush Calls for Universal Broadband by 2007," MSNBC (March 26, 2004) at http://www.msnbc.com/id/4609864. (announcing that "[the U.S.] ought to have universal, affordable access for broadband technology by the year 2007, and then we ought to make sure as soon as possible thereafter, consumers have got plenty of choices when it comes to purchasing the broadband carrier."); *And see* Presidential Memorandum to the Heads of Executive Departments and Agencies (April 26, 2004) at http://www.whitehouse.gov/news/releases/2004/04/20040426-2.html. (reiterating that all Americans should have affordable access to broadband technology by the year 2007).

public benefits that it will bring, it is very important that the FCC continue to support technical rules and public policies that encourage the commercial deployment of BPL service.

WHEREFORE, THE PREMISES CONSIDERED, the UPLC is pleased to provide these comments in response to the Commission's Notice of Inquiry in this proceeding.

Respectfully submitted,

UPLC

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